

WHAT IS CLAIMED IS:

1. An anti-reflective structure comprising many micro holes each having an opening at a first surface and a bottom
5 facing a second surface opposite to the first surface, each hole extending from the opening to the bottom.

2. The anti-reflective structure according to claim 1,
wherein the ratio of the openings to the first surface is set
10 to 70% to 85% per unit area.

3. The anti-reflective structure according to claim 1,
wherein the reflectance is set to 1% or less.

15 4. The anti-reflective structure according to claim 1,
wherein the bottom of each hole has a quadratic surface.

5. The anti-reflective structure according to claim 1,
wherein the opening of each hole has a polygonal shape.
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6. The anti-reflective structure according to claim 1,
wherein the openings are disposed in a staggered arrangement
in the first surface.

25 7. An anti-reflective film comprising an anti-reflective structure according to claim 1 which is formed on at least one of the front face and the rear face of the film.

8. A light guide comprising:
an anti-reflective structure having many micro holes
each having an opening at a first surface and a bottom facing
a second surface opposite to the first surface, each hole
5 extending from the opening to the bottom; and
a reflective structure having many micro grooves formed
in the second surface.

9. An illuminating device comprising a light guide
10 according to claim 8, and a light source for irradiating the
light guide.

10. A liquid crystal display device comprising an
illuminating device according to claim 9, and a liquid
15 crystal display unit.

11. A mold for forming an anti-reflective film
comprising an anti-reflective structure having many micro
holes each having an opening at a first surface and a bottom
20 facing a second surface opposite to the first surface, each
hole extending from the opening to the bottom, the mold
comprising a first inner surface for forming the first
surface, a second inner surface for forming the second
surface, and many micro protrusions protruding from the first
25 inner surface to the second inner surface for patterning the
outlines of the holes.

12. The mold for forming an anti-reflective film

according to claim 11, wherein the protrusions are disposed in a staggered arrangement.